

Responses to Major Comments on Technical Support Document

Public Health Goal For Thiobencarb In Drinking Water

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INTRODUCTION

The following are responses to major comments received by the Office of Environmental Health Hazard Assessment (OEHHHA) on the proposed public health goal (PHG) technical support document for thiobencarb as discussed at the PHG workshop held on November 5, 1999, or as revised following the workshop. Some commenters provided comments on both the first and second drafts. For the sake of brevity, we have selected the more important or representative comments for responses. Comments appear in quotation marks where they are directly quoted from the submission; paraphrased comments are in italics.

These comments and responses are provided in the spirit of the open dialogue among scientists that is part of the process under Health and Safety Code Section 57003. For further information about the PHG process or to obtain copies of PHG documents, visit the OEHHHA Web site at www.oehha.org. OEHHHA may also be contacted at:

Office of Environmental Health Hazard Assessment
301 Capitol Mall, Room 205
Sacramento, California 95814
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RESPONSES TO MAJOR COMMENTS RECEIVED

Department of Health Services

Comment: *A mistake in chemical structure of thiobencarb (missing two hydrogens for each carbon attached to the nitrogen atom) was noted.*

Response: The chemical structure was corrected.

University of California, Berkeley

Comment: *The reviewer noticed that in the PHG draft document there was “...no discussion of taste thresholds at the proposed PHG of 70 ppb.” He suggested that the general issue of “taste threshold” in water be amplified in the document. He also expressed his concern that the PHG for thiobencarb might have been set too high if there is a taste problem.*

Response: Protective regulatory measures against bad taste of thiobencarb oxidation products such as thiobencarb sulfoxide and thiobencarb sulfone that may result from water treatment were taken in California by the establishment of a secondary maximum contaminant level (SMCL). The SMCL is intended to prevent off-taste of drinking water supplied to the public from the Sacramento and American River after its chlorination. It was set at 1 ppb, and was recommended in response to the public complaints about the quality of drinking water delivered by public water systems. It does not represent a taste threshold. There is currently no information on taste threshold for thiobencarb and its chlorination products.

The issue of the SMCL was briefly addressed in the draft public health goal (PHG) document (the last paragraph on page 18). However, in order to further clarify the independent coexistence of the two California Drinking Water Standards, the maximum contaminant level (MCL) and the SMCL (both enforceable), the section on “Organoleptic Properties” (page 3 of the PHG document) was expanded.

Comment: *“It would be of interest to know how potent oxidized metabolites of thiobencarb are, as reversible inhibitors of carboxylesterases.”*

Response: Information on potency of the oxidized metabolites of thiobencarb as inhibitors of carboxylesterases is not readily available and is not directly applicable to the development of PHG for thiobencarb. No change has been made to the document.

Comment: *The reviewer recommended defining toxicity category III and IV as related to the Acute Toxicity Values for Thiobencarb presented in Table 4.*

Response: The last paragraph on page 8 has been changed as follows: “Results of the acute tests presented above show that the technical thiobencarb can be assigned Toxicity Category III based on the oral (LD₅₀ from 500 through 5000 mg/kg) and dermal (LD₅₀ from 2000 through 20,000 mg/kg) exposures and Toxicity Category IV based on the results from inhalation (LC₅₀ from 2.0 through 20 mg/liter) and dermal irritation tests (mild or slight irritation at 72 hours). Pesticide products meeting the criteria of Toxicity Category III and IV shall bear on the label the signal word ‘Caution’”.

Comment: *The reviewer recommended several other minor changes consisting of suggestions for clarification of terminology and small editorial changes.*

Responses: All suggestions were considered and for most of them, minor wording changes were made for correction or clarification.